

Introduction: the nexus of social innovation, sustainable consumption and societal transformation

Citation for published version (APA):

Backhaus, J., Genus, A., & Wittmayer, J. M. (2018). Introduction: the nexus of social innovation, sustainable consumption and societal transformation. In J. Backhaus, A. Genus, S. Lorek, E. Vadovics, & J. M. Wittmayer (Eds.), *Social Innovation and Sustainable Consumption: Research and Action for Societal Transformation* (pp. 1-11). Routledge/Taylor & Francis Group. Routledge-SOCRAI Studies in Sustainable Consumption

Document status and date:

Published: 01/01/2018

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

www.umlib.nl/taverne-license

Take down policy

If you believe that this document breaches copyright please contact us at:

repository@maastrichtuniversity.nl

providing details and we will investigate your claim.

Download date: 05 May. 2023

Chapter One: Introduction: the Nexus of Social Innovation, Sustainable Consumption and Societal Transformation

Julia Backhaus¹

International Centre for Integrated Assessment and Sustainable Development
Maastricht University
P.O. Box 616, 6200 MD Maastricht
The Netherlands

j.backhaus@maastrichtuniversity.nl

Audley Genus

Kingston Business School
Kingston University
Kingston Hill
Surrey KT2 7LB

a.genus@kingston.ac.uk

Julia Wittmayer

DRIFT
Erasmus University, Rotterdam
Burgemeester Oudlaan 50
3062 PA Rotterdam
The Netherlands

j.m.wittmayer@drift.eur.nl

1. Background

Globalised consumption and production patterns contribute to environmental change and damage, most noticeably in the form of anthropogenic climate change, resource depletion and the pollution of water and air. In addition to environmental degradation, societies worldwide are facing deep challenges including political unrest, instability or even crises, a widening gap in income and security between wealthier and poorer population segments and the erosion of social cohesion in the face of mass migration. It has been argued (Lundvall in press) that these are not isolated phenomena but consequences of a global, capitalist system which emphasises the pursuit of economic growth based on market competition and measured by indicators such as GDP. Despite global, national and local efforts to protect the environment and citizens from the hazardous effects of an – in terms of spread and volume – ever-expanding global market for capital, services and goods, ‘bad news’ appears to outweigh ‘good news’, whereas a relatively small number of people make enormous financial gains. In a number of countries, the political establishment struggles between hardening frontlines dividing those who support national(istic) approaches and those who promote international cooperation to face the crises and challenges of the 21st century.

¹ Names of co-authors of this chapter are listed alphabetically

Until recently, there seemed to be a global consensus on the necessity to undertake concerted action on climate change, as stipulated for example in the Paris Agreement that was signed at COP21 in 2015. With the impending withdrawal of the United Kingdom from the European Union ('Brexit') and the 2016 presidential election in the USA, the global political context has since become less predictable. US policies under President Trump have changed and are expected to change further, with climate change 'denial' a pervasive element of relevant discourses in the historically largest national emitter of greenhouse gases. Also, the UK government department responsible for climate change and energy affairs (DECC) was disbanded, soon after Theresa May became prime minister in July 2016, and absorbed into the business ministry. The focus of energy policy was redirected towards reducing costs for consumers and business rather than 'green' subsidies, technologies and targets. While these developments make for a bleak outlook from the perspective of sustainable consumption and development, other developments serve as beacons of hope for many.

An imperative is to devise effective measures to reduce consumption, for example but not restricted to high carbon-emitting sectors such as energy, transport and food (IPPC [Blanco et al.] 2014; Genus and Thorpe 2016). There have been notable policy developments concerning sustainable consumption in the European Union, for example, and some remarkable policies undertaken by and in EU states. For instance, in relation to mobility, one can point to the French 'bonus/malus' private vehicle tax/credit scheme and the city-wide Paris 'Velib' bicycle-sharing initiative, particulates badges and environmental zones banning the biggest polluters from German cities, and in the UK to the national level Carbon Plan of 2011, and the central London congestion charge. In the energy sector, the number of energy cooperatives and other community energy projects aimed at energy sovereignty and sustainability has risen steeply, often benefitting from national subsidy schemes. In the food sector, labelling schemes developed and implemented by public-private, multi-stakeholder platforms seek to address persistent problems with respect to human and animal welfare as well as environmental protection. Next to policy-led or policy-driven developments, interest in sustainable business models is high, with companies and scientists invested in optimising solutions for shared value creation. In addition, 'transformative science' has become a catch phrase for interventions at various scale levels that aim to test and promote more sustainable ways of living. Last but not least, countless civil society initiatives have sprouted, reviving old or pioneering new approaches to sustainable living, including solidarity, open source or peer-to-peer approaches to production and consumption.

In recent years, EU policy-makers have identified social innovation as a potentially effective approach for tackling grand societal challenges such as those connected to water, climate change and energy as well as to the production of goods (BEPA 2010; BEPA 2014; European Commission 2013a, b; SCU 2014): social innovation "can provide local answers to complex social and societal challenges mobilising local actors" (EC 2013b: 10). The EU can be considered to have followed in the footsteps of Latin America, which has a much longer tradition in fostering social innovation to address policy problems and market failures (Rey de Marulanda and Tancredi 2010). In European policy circles, social innovation emerged as a potential solution to the needs of citizens at the local level and to challenges for which conventional markets are ill-adapted (Mulgan et al. 2007). In line with this reasoning, the European Commission has allocated an increasing budget to researching and understanding social innovation in Europe (see EC 2013a; EC no date, for an overview).

One of these research projects is 'TRANSIT' (Transformative Social Innovation Theory). In collaboration with SCORAI Europe (Sustainable Consumption Research and Action Initiative Europe - which is a body with roots in an earlier EU-funded project known as 'SCORE!' and closely connected with the North American SCORAI network). TRANSIT jointly organised a workshop where most of the contributions to this book were presented and discussed. The workshop was inspired by the intriguing nexus between social innovation, sustainable consumption and societal transformation. It built on theoretical considerations, such as the current pervasiveness of the notion of 'transition' and what moving 'beyond transition' could bring to the study of past or ongoing changes and to influencing current practices, ideas and actors. The workshop also explored this nexus through case studies of social innovation and sustainable consumption as well as of policies which influence these at different sub-national, national and international scales. Through contributions, presentations and discussions, participants scrutinised the practice and relevance of social innovation and sustainable consumption initiatives and whether they have some transformative and widely beneficial real-world consequences.

2. Aims

Building on the workshop contributions, this book provides timely coverage of the nexus between social innovation, sustainable consumption and societal transformation. It explores this nexus through discussion of cornerstone concepts as well as providing empirical observation and critical reflections on developments in practice. It brings together theoretical and empirical contributions on questions such as: what is social innovation and how can it contribute to sustainable consumption or societal transformation? What is the transformative potential of social innovation initiatives vis-à-vis incumbent institutions and dominant practices? How might societies unlock the full potential of social innovation for sustainable consumption?

The book provides a space for developing a better understanding of the merits of different perspectives on societal change in relation to social innovation which can both positively and negatively contribute to sustainable or reduced consumption in defined sectors or across social practices, space and time. The discussions are enriched by contributions from academic researchers, practitioners and 'pracademics' bringing diverse knowledge and experience to bear on issues of concern. Empirical contributions focus on disentangling, and thereby contributing to a further understanding of, the relation between social innovation, sustainable consumption and societal change. The case studies show the various ways in which 'social innovation', 'transition', 'transformation' and 'sustainable consumption' are understood or practised across several European countries. Through these empirical cases, authors probe the possibility and the difficulty inherent in 'doing things differently' from business-as-usual. These also highlight the point that practitioners in social innovation initiatives challenge yet at the same time are subject to prevailing, dominant institutions, which they reproduce.

The core aims of the book are:

- to analyse the relations between **social innovation(s)** and **sustainable consumption** and to identify ways in which social innovation in practice can contribute effectively to sustainable consumption;

- to critically reflect on the relations between **social innovation(s)** and **societal transformation** and to assess the transformative potential of social innovation initiatives vis-à-vis incumbent institutions and dominant practices.

3. The nexus of social innovation, sustainable consumption and societal transformation

The book revolves around the three key themes of social innovation, sustainable consumption and societal transformation and their nexus (see Figure 1.1). The following paragraphs introduce each key theme to stimulate thinking about them individually and interrelatedly, and to articulate their salience to the work and concerns of the book. In the further course of the book, each contributory chapter positions itself in relation to these three elements. The contributions come from diverse disciplinary backgrounds, including amongst others innovation studies, sociology and geography, and employ a range of methodological approaches, sometimes in a cross- or trans-disciplinary way.

[FIGURE 1.1 ABOUT HERE]

3.1 Social innovation

Research on social innovation is not coherent in terms of disciplinary focus or approach. Rather the phenomenon is approached from different perspectives and therefore also defined in different ways. Sociological contributions most often identify social innovations as new practices, or new combinations of practices (e.g. Howaldt and Kopp 2012). Approaching the phenomenon from urban studies, Moulaert et al. (2005) distinguish between three dimensions of social innovation such as 1) satisfaction of human needs presently unmet, 2) changes in social relations and 3) empowerment. A recent review identified changing social relations or systems as well as the goal to address or solve a socially relevant problem as common themes across distinct bodies of literatures grappling with this topic (van der Have and Rubalcaba 2016). Relevant to the themes of the book are certainly those authors who connect social innovation to social change (Cajaiba-Santana 2014) or more specifically to societal transformations (Haxeltine et al. 2016, Avelino et al. forthcoming, Pel and Bauler 2014). The latter authors (as part of the TRANSIT research project) approach social innovations as changes in social relations, involving new ways of doing, organising, knowing and framing and consider transformative social innovations as those that challenge, alter or replace dominant institutions.

3.2 Sustainable consumption

Current lifestyles in the Western world and among the affluent everywhere are based on patterns of overproduction and overconsumption, already exceeding several of the physical boundaries of our planetary system (Rockström et al. 2009) and leading to the exhaustion of natural resources and climate change. While the global, capitalist economy is facing several systemic, interrelated crises, research and action on more sustainable consumption patterns and lifestyles aims to explore and experience what it means to live a happy, healthy and sustainable life (Backhaus et al. 2011). Recurring themes are ‘one planet living’, ‘a footprint of 1.0’, or ‘a good life’ and points of attention include infrastructures, policy frameworks, governance approaches, business models, and communities that foster or achieve more sustainable – or reduced – consumption (Genus and Thorpe 2016). In recent years, sustainable consumption research has increasingly concerned itself with social inequalities and the identification and creation of sustainable consumption ‘corridors’ (Di Giulio and Fuchs 2014) or of a ‘safe and just operating space for humanity’ (Raworth 2012). Another

central theme has been to challenge the notion that (un)sustainable consumption – and related policies – should be focused on the attitudes, behaviour choices of the individual consumer, the so-called ‘ABC’ approach (Shove et al. 2012; Shove and Walker 2014). Rather, it is argued that a focus on unsustainable *practices* should be adopted, drawing attention to collective conventions and cultures of practice in everyday living, in which complexes of related practices are recognised (e.g. working in an office, using the computer and automobile transport), each comprising material, symbolic and knowledge elements. How and to what extent these may be undone and more sustainable practices embedded are questions which demand much of institutional entrepreneurs – whether these be policy-makers, social movements or businesses, currently mainstream or operating on its fringes or in its basement (Genus, 2016).

3.3 Societal transformation

Societal transformations can be conceptualised as fundamental, persistent and irreversible change across society (Avelino et al. 2014). The use of the term transformation draws on the work of Karl Polanyi (1944) who describes the rise of the market economy and the ideology of economic liberalism as the Great Transformation. As such, societal transformation exceeds radical change in individual societal or socio-technical sub-systems, which are commonly referred to as system innovation or transition. While some scholars have discussed ‘transitions’ at a more aggregated level (Rotmans and Loorbach 2010), others suggest that transition thinking encapsulates the (illusion of) intentional societal change (Stirling 2014). In relating societal transformation to sustainable consumption, several of the book’s chapters reflect on questions related to intentionality, empowerment, and the intended and unintended (side-)effects of social innovations. To be transformative, these kinds of innovations should enable or bring about new relations between politics, society, science and the economy (WBGU 2011), globally and in people’s everyday lives. This may sound highly visionary and universal. However, the tension between local innovations and such grand ambition calls into question the boundaries of effective putative societal change and the means by which it is to be achieved. Moreover, the question is posed as to the possible political purposes of utopian ‘imaginaries’ (Jasanoff and Kim, 2013), for example employed as persuasive or coercive co-opting devices, and of the nature and distribution of often unacknowledged potential ‘bads’ of transformation. A more rounded view appreciates that there may be losers as well as winners in the new society/economy, as it may well (re)produce injustices, unfairnesses and inequities.

4. The structure of the book

The chapters offer theoretical-conceptual advancements in the understanding of social innovation and its potential contribution to sustainable consumption and societal transformation. They also present case studies situated in a range of sites, for example in relation to food, housing, energy and policy, and geographical locations, mostly in Europe. Analytically, the case studies focus on actors, discourses or practices and illustrate recent research and practice on the relation between social innovation, societal change and sustainable or reduced consumption. This includes processes of institutionalisation at different scales, and invites questions about the roles of different actors, such as city administrators or local food activists and thinking about the roles of narratives in societal transformations. There is analysis and reflection on the normative direction of a desired societal transformation towards sustainability.

The order in which chapter contributions appear in the book mirrors the positioning depicted in Figure 1.1. Working in a (roughly) clockwise direction around Figure 1.1, the book proceeds with one of the contributions positioned most centrally in the diagram (i.e. Chapter 2), which most clearly addresses the interrelationship of social innovation, societal transformation and sustainable consumption. Chapters 3-5 are more directly concerned with social innovation and its relation with societal transformation. Chapters 6-9 are more explicitly concerned with sustainable consumption as they address issues connected with the role of social innovation within societal transformation. Chapter 10 completes the (not quite) circle, to consider the framing and mapping of social innovation initiatives and their potential contribution to societal transformation and sustainable consumption. A summary of each chapter contribution is given below.

The following chapter (Chapter 2), by Haxeltine et al., explores the nexus of social innovation and societal transformation, which they conceive of as ‘sustainability transformations’. The authors draw on the cases of the Transition Movement, Global Ecovillage Network, Slow Food, and Credit Unions. They argue that potentially transformative social innovations such as these require explicit political strategies to challenge, reshape and ultimately supplant prevailing institutional arrangements which reproduce extant unsustainable practices, systems and modes of organisation and governance.

Chapter 3, by Backhaus and colleagues, explores insights that conceptual tools, rooted in different yet complementary understandings of the world, may be able to offer to sharing economy initiatives to help navigate the sustainable consumption, societal transformation and social innovation nexus in practice. Based on theoretical and empirical analysis, several intuitive challenges for sharing schemes to be successful and sustainable are identified and a set of guiding principles is suggested to enhance the successful interlocking of old and new practices and to foster sectoral and cross-sectoral transformation towards sustainability.

The chapter by Michael Jonas (Chapter 4) considers the view that grand societal challenges fundamentally require processes capable of transforming social practices. Accordingly, Jonas explores connections among sustainable consumption, social innovation and societal transformation taking a position rooted in practice theory. Centrally, the argument is made that transformation may be manifest in the emergence of frugal practices which engender well-being, and which may entail social innovations which are but one element of a more equal and sustainable social order.

The chapter co-authored by Marcelline Bonneau and François Jégou (Chapter 5) addresses institutional transformation as contributing to societal transformations drawing on the examples of the cities of Amersfoort (The Netherlands) and Gdansk (Poland). In searching for new ways to interact with citizens, public administrations adopt social innovation as a way of experimenting with new governance models. These new practices also translate into changes within the public administration, with changing internal processes, attitudes and procedures as a consequence.

In Chapter 6, Keighley McFarland and Julia Wittmayer show that consumption practices are ‘only one part of the problem’. Thus it is unwise to focus interventions on ‘consuming better’, without reshaping underlying policy processes and institutions which govern market and social relations. Their analysis is informed by a case study of food systems in Germany, focusing on the Food Assembly, an example of community pick-up point schemes, which

are in turn a kind of alternative food network. Critically, in the authors' view the case represents a social innovation which challenges certain dominant institutions but not others. Thus it partially reproduces prevailing approaches to sustainable consumption (of food) based upon political consumerism, rather than any more fundamental rethinking of policy, and economic and social organisation around food.

Iain Soutar's contribution (Chapter 7) examines community energy in the UK as a site for social innovation. For Soutar, social and technological innovations connected with community energy are able to challenge dominant institutions to effect and realise energy systems transformation. A vital role is played by discourse and experimentation regarding what the relation between energy systems and communities should be and in constituting this relation. It is argued that community energy discourse and experiments as social innovation embrace much more than the conventional preoccupations of policy, connected with objectives of decarbonisation, security and affordability. Indeed, they take in a far broader range of concerns, including societal objectives pertaining to health and wellbeing, economics, fairness, and democracy.

The chapter by Emese Gulyás and Balint Balázs (Chapter 8) scrutinises the role of consumers in social innovation; namely in community supported agriculture and direct food purchasing groups in Hungary. Taking a 'narrative of change' framework, they show that consumers participate because they consider dominant market structures as failing us: they want to take an active role and regain power. They also show that those participating in the initiatives have strong social capital and link to other initiatives. Finally, in line with the motivations for participating – they scrutinize that change is thought to come about through bottom-up initiatives rather than by established institutions and is closely related to levels of trust and distrust.

Chapter 9, by Michaela Leitner and Beate Littig, examines the transformative potential of cohousing, focusing on a case study of its emergence in Austria and possible limitations thereto. Leitner and Littig see cohousing – including the Viennese case they analyse – as social experimentation, which may engender novel patterns of intentionally communal everyday living. In this context, residents collectively may adopt more sustainable practices across a range of domains of their daily lives and work. However, whilst voluntary and collective initiatives such as cohousing may not be driven by external pressure (e.g. from policy-makers), those who participate or might to do so will be subject to conditions in wider society. Cultures of individualism and gendering may complicate well-meaning attempts at living communally and sustainably in socially innovative arrangements.

In Chapter 10, Vadovics and Milton present a tool for convergence mapping, which might allow for comparison among social innovation initiatives in relation to their potential to contribute to greater sustainability and societal transformation based on ecological principles and social equity. The work they present is founded on research undertaken as part of the CONVERGE project, funded under the European Union Seventh Framework programme, a project which aimed to 'rethink globalisation' based on considerations of fair access to planetary resources and respect for ecological limits. The authors illustrate the use of the tool using three examples: a carbon reduction action group in the UK; a transition town initiative located in Hungary; and a not-for-profit poverty alleviation organisation based in Tamil Nadu, India.

Much of the empirical material presented in the chapters below is situated in a European context. To transcend this geographical focus and to acknowledge the global scope and scale required for meaningful transformations towards more sustainable levels and patterns of consumption, two of the chapters appearing near the end of the book (Chapters 11 and 12) take the form of commentaries as reflections. There is one commentary from Philip Vergragt, a senior researcher at the Tellus Institute and Clark University in the USA, and one from a Japanese Satoru Mizuguchi, Chair of the Japanese Forum of Environmental Journalists, both of whose work is closely connected with the themes and concerns of the book. The concluding chapter (Chapter 13), is written by Sylvia Lorek and Edina Vadovics, two members of the editorial team. It analyses and synthesises the different chapters with regard to their contribution to the guiding questions of the book, as well as proposing ways for taking the issues raised in them further.

References

- Avelino F., Wittmayer J.M., Pel B., Weaver P., Dumitru A., Haxeltine A., Kemp R., Jørgensen M.S., Bauler T., Ruijsink S., O’Riordan T. (forthcoming) “Transformative Social Innovation and (Dis)Empowerment: Towards a Heuristic” submitted to *Technological Forecasting and Social Change* (May 2016)
- Backhaus J., Breukers S., Mont O., Paukovic M., Mourik R. and the SPREAD Sustainable Lifestyles 2050 consortium (2011) Sustainable Lifestyles: Today's Facts and Tomorrow's Trends, Deliverable 1.1 Sustainable lifestyles baseline report of the SPREAD Sustainable Lifestyles 2050 project funded by the European Commission under grant agreement #263962 (http://www.sustainablelifestyles.eu/fileadmin/images/content/D1.1_Baseline_Report.pdf) Accessed 5 May 2017
- BEPA (Bureau of European Policy Advisors) 2010 "Empowering people, driving change". Social Innovation in the European Union, European Commission, Brussels
- BEPA (Bureau of European Policy Advisors) 2014 Social Innovation A Decade of Changes (<http://www.transitsocialinnovation.eu/resource-hub/social-innovation-a-decade-of-changes-a-bepa-report>) Accessed 5 May 2017
- Cajaiba-Santana G. (2014) “Social innovation: moving the field forward. A conceptual framework” *Technological Forecasting and Social Change*, 82 42–51
- Di Giulio A. and Fuchs D. (2014) "Sustainable Consumption Corridors: Concept, Objections, and Responses" *GAIA-Ecological Perspectives for Science and Society*, 23(51) 184-192
- European Commission (no date) Research on Social Innovation. Inventory of projects funded under the EU Research Framework Programmes (https://ec.europa.eu/research/social-sciences/pdf/project_synopses/ssh-projects-fp7-5-6-social-innovation_en.pdf#view=fit&pagemode=none) Accessed 5 May 2017
- European Commission (2013a) "Social innovation research in the European Union. Approaches, findings and future directions - Policy Review" Directorate-General for

European Commission (2013b) Guide to social innovation ([http://s3platform.jrc.ec.europa.eu/documents/20182/84453/Guide to Social Innovation.pdf](http://s3platform.jrc.ec.europa.eu/documents/20182/84453/Guide_to_Social_Innovation.pdf)) Accessed 5 May 2017

Genus A. (2016) "Sustainability Transitions: a Discourse-institutional Perspective" in Brauch H Oswald Spring Ú Grin J and Scheffran J eds, *Handbook on Sustainability Transition and Sustainable Peace* Springer, Berlin 527-541

Genus A. and Thorpe A. (2016) "Introduction" in Genus A ed, *Sustainable Consumption. Design, Innovation and Practice* Springer, Dordrecht 1-15

Haxeltine A., Avelino F., Pel B., Dumitru A., Kemp R., Longhurst N., Chilvers J. and Wittmayer J. M. (2016) A framework for Transformative Social Innovation (TRANSIT Working Paper # 5), TRANSIT: EU SSH.2013.3.2-1 Grant agreement no: 61316

Howaldt J. and Kopp, R. (2012) "Shaping social innovation by social research" in Franz H W Hochgerner J Howaldt J eds, *Challenge Social Innovation: Potentials for Business, Social Entrepreneurship, Welfare and Civil Society* Springer, Berlin/Heidelberg 43-56

IPPC [Blanco G., Gerlagh R. and Suh S. et al.] 2014 "Drivers, Trends and Mitigation" in Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Jasanoff S. and Kim S-H. (2013) "Sociotechnical Imaginaries and National Energy Policies" *Science as Culture*, 22(2) 189-196

Lundvall B-A. (in press) "Is there a technological fix for the current global stagnation? A response to Daniele Archibugi, Blade Runner economics: Will innovation lead the economic recovery?" *Research Policy*

Moulaert F., Martinelli F., Syngedouw E. and Gonzalez, S. (2005) "Towards alternative model(s) of local innovation" *Urban Studies*, 42 1969-1990

Mulgan G., Tucker S., Ali R. and Sanders B. (2007) Social innovation: what it is, why it matters and how it can be accelerated. Working Paper. Skoll Centre for Social Entrepreneurship, Saïd Business School, Oxford

Pel B. and Bauler T. (2014) The institutionalization of social innovation : between transformation and capture (TRANSIT working paper 2). TRANSIT: EU SSH.2013.3.2-1 Grant agreement no. 613169

Polanyi K. (1944 [1997]) *The Great Transformation – Politische und ökonomische Ursprünge von Gesellschaften und Wirtschaftssystemen* Suhrkamp, Frankfurt

- Raworth K. (2012) A Safe and Just Space for Humanity. Can we live within the doughnut? Oxfam Discussion Paper, February
- Rey de Marulanda N. and Tancredi F. B. (2010) From social innovation to public policy Success stories in Latin America and the Caribbean. UN Economic Commission for Latin America and the Caribbean LC/W.351. (<http://repositorio.cepal.org/bitstream/handle/11362/3795/lcw351.pdf?sequence=1&isAllowed=y>) Accessed 5 May 2017
- Rockström J., Steffen W., Noone K., Persson Å., Chapin III F. S., Lambin E., Lenton T. M., Scheffer M., Folke C., Schellnhuber H., Nykvist B., De Wit C. A., Hughes T., van der Leeuw S., Rodhe H., Sörlin S., Snyder P. K., Costanza R., Svedin U., Falkenmark M., Karlberg L., Corell R. W., Fabry V. J., Hansen J., Walker B., Liverman D., Richardson K., Crutzen P. and Foley J. (2009) “Planetary boundaries: exploring the safe operating space for humanity” *Ecology and Society* 14(2) 32 (<http://www.ecologyandsociety.org/vol14/iss2/art32/>) Accessed 5 May 2017
- Rotmans J. and Loorbach D. (2010) “Towards a better understanding of transitions and their governance: a systemic and reflexive approach, part II” in Grin J Rotmans J and Schot J eds, *Transitions to Sustainable Development; New Directions in the Study of Long Term Transformative Change* Routledge, New York
- Science Communication Unit, University of the West of England, Bristol (2014). *Science for Environment Policy In-depth Report: Social Innovation and the Environment*. Report produced for the European Commission DG Environment, February (<http://ec.europa.eu/science-environment-policy>) Accessed 5 May 2017
- Shove E., Pantzar M. and Watson, M. (2012) *The Dynamics of Social Practice: Everyday Life and how it Changes* Sage, London
- Shove E. and Walker G. (2014) “What Is Energy For? Social Practice and Energy Demand” *Theory, Culture and Society*, 3(5) 41–58
- Stirling A. (2014) “Transforming power: social science and the politics of energy choices” *Energy Research and Social Science*, 1 83-95
- van der Have R. P. and Rubalcaba L. (2016) “Social innovation research: an emerging area of innovation studies?” *Research Policy*, 45 1923–1935
- WBGU (German Advisory Council on Global Change) (2011) World in Transition – A Social Contract for Sustainability Flagship Report 2011. WBGU German Advisory Council on Global Change, Berlin